Blake Dawson

Planning and the Renewable Energy Target

Patrick Ibbotson
Partner

6 October 2009

Overview

- The Renewable Energy (Electricity) Act targets
- The international scene
- What has been happening in NSW
- Thinking about impediments to projects
- The NSW legislative framework
- Some issues
- Conflict in delivering projects
- The approach taken by the courts

The Renewable Energy (Electricity) Act Targets (section 40) GWh

2009	8100
2010	9500
2011	11500
2012	13500
2013	16000
2014	19000
2015	22500
2016	26500
2017	31000
2018	35500
2019	40000
2020	45000

Suggests more than a fivefold increase in generation.

Renewable Energy (Electricity) Act 2000

- Accreditation of Power Station
- Eligible renewable energy source
  - Hydro
  - Wave
  - Tide
  - Ocean
  - Wind
  - Solar
  - Geothermal – aquifer
  - Hot dry rock
  - Energy crops
  - Wood waste
  - Agricultural waste
  - Waste from processing agricultural product
  - Food waste
  - Food processing waste
  - Bagasse
  - Black liquor
  - Biomass
  - Landfill gas
  - Sewage gas and biomass
  - Others in Regulations
- Also Eligible Waste Coal Mine Gas

Renewable Energy (Electricity) Act 2000

- Certificate for Electricity Generation each MWh generated in excess of the 1997 eligible renewable power base line
- Solar hot water heaters and small generation units
- Certificate registered and can be transferred
- Charge levied under Renewable Energy (Electricity) (Charge) Act 2000 on entity making wholesale acquisitions if there is a renewable energy certificate shortfall (see sections 36 and 38)
- Required renewable power percentage increases each year

MMA Modeling suggests

Main contributions to renewable capacity by 2020 will be from wind generation:

- Wind increasing up to 7000MW by 2020 and 13000 MW by 2050
- Geothermal from about 2015
- Solar from about 2020

What is happening internationally?

- Overall renewable power capacity increased 75% 2004 - 2008
- Wind generation may be 12% of global production by 2020
- Strong growth starting in China and the US = competition for technology, people, money
- Feed in tariffs are being used to stimulate development of facilities = competition for technology and money
- Australian technology relocating overseas

What has been happening in NSW

Major Project Applications for New Generation Capacity

Since 2006

- Wind - 13
- Gas - 12
- Solar (part) - 1
- Hydro (part) -1
- Coal Fired - 0
- Coal or Gas - 2 total 4000MW
- Biogas - 1
- Distillate - 1
- Coal Seam Methane - 2

What has been happening in NSW

Major Project Applications for New Generation Capacity

By Year for Wind

- 2006 - 4
- 2007 - 3
- 2008 - 3
- 2009 - 3

What has been happening in NSW

Major Project Applications for New Capacity since 2006

Type	Capacity	Cost
Wind (13)	3 – 3.1 GW	$6.2 - $6.6
Gas (12)	3.2 – 3.5 GW	$2.6 - $3.6B
Solar (part)	3 MW	
Hydro (part)	1 MW	
Coal Fired 0		
Coal or Gas (2)	2 x 2GW	For one is $2.6- $5B
Biogas (1)	5MW	$18.8M
Distillate (1)	150MW	$50M
Coal Seam Methane (2)	41- 70MW	$92M

Impediments to Projects

- Project includes the generation facility and the connecting infrastructure
- Access to land – land owner agreements, native title, high ecological value, community land
- Approvals – planning, “operational”
- Economics – finance, power purchase agreements, feed in tariffs
- Technological – intermittency, efficiency, transmission losses

Impediments to Projects

Feed In Tariffs

State	Commence	Cap	Tariff	Type
NSW	01/10	10kW	60c/kWh	Net
Vic	11/09	5kW	60c /kWh(credit)	Net
SA	06/08	10kW	44c/kWh	Net
TAS		Tbc	20c/kWh	Net
NT		Tbc	45.76c/kWh to $5 per day then 23.11c/kWh	Net
WA	Tbc	Tbc	Tbc	
Qld	O7/09	10kW	44c/kWh	Net
ACT	03/09	Variable 10, 10-30, 30+	50.5c/kWh to 10kW	Gross
Cth	Nil	Nil		

Source: www.energymatters.com.au

Impediments to Projects

- Feed in Tariffs
  - Current approach fragmented
  - Focus on small generation
- Renewable Energy (Feed In Tariff for Electricity) Bill 2009
  - Independent's bill
  - Not passed
- Renewable Energy (Electricity) (Charge) Act 2000
  - Rate of charge is $65 per MWh

The NSW Legislative Context

Planning Approvals

- Environmental Planning and Assessment Act
- Commonwealth Environment Protection and Biodiversity Conservation Act

The NSW Legislative Context

Planning Approvals

- Part 3A
- Development for the purpose of a facility for the generation of electricity or heat or their co-generation (using any energy source, including gas, coal, bio-fuel, distillate and waste and hydro, wave, solar or wind power), being development that:

  (a) has a capital investment value of more than $30 million, or

  (b) has a capital investment value of more than $5 million and is located in an environmentally sensitive area of State significance.

The NSW Legislative Context

Planning Approvals – Part 3A Process

- Application
- DGRs
- Environmental Assessment carried out
- Submit EA
- Exhibition
- Public Submissions
- Proponent Response
- DG Report
- Possible PAC hearing
- Determination

The NSW Legislative Context

Planning Approvals

- Critical infrastructure
- Facility for the generation of electricity capacity to generate at least 250MW and application lodged prior to 1 January 2013

The NSW Legislative Context

Planning Approvals

- 16 renewables projects applications under Part 3A
- 6 approved
- 2 withdrawn
- 8 in process

The NSW Legislative Context

Planning Approvals

Of those approved:

Project	Time (months)
1	11
2	14
3	15
4	25
5	16
6	22
Av	**17**

The NSW Legislative Context

Planning Approvals

SEPP Infrastructure

- Electricity Generation generally permissible with consent
- Certain Solar PV facilities exempt or complying
- Wind monitoring tower may be exempt
- Development for distribution network by supply authority or public authority permitted without consent (subject to exceptions)

Approvals – Some Issues

- Conflicts with Communities
  - Flicker
  - Noise
  - Visual impact
- Impacts on threatened species and ecological communities and populations
- EPBC Act
- Land Acquisition – Native Title, national parks, community land

Approvals – the Land and Environment Court's Approach

Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd [2007]

How to balance a global issue against local impacts?

The difficulty facing governments globally is how to deal with the implications of climate change while continuing to meet the needs of growing populations…the energy industry is by far the largest contributor to greenhouse gas emissions...compounding this situation is that in the past two decades electricity demand in Australia has almost doubled…the projected electricity needs of the population indicate further growth of 50% in the period prior to 2020, making large scale new developments in infrastructure and energy resources a necessity…[a requirement is] to increasingly substitute energy sources that result in less greenhouse gas emissions for energy sources that result in more greenhouse gas emissions…renewable energy sources are an important method of reducing greenhouse gas emissions and preserving traditional energy sources….

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An emerging issue

- Renewable projects are disaggregated or decentralised
- How will the planning system cope with decentralization of generation
- Zoning of land (note SEPP Infrastructure)
- EPA Licencing
- Critical Infrastructure reflects focus on large facilities
- Protection of facilities
- Impacts on neighbours
- Protection of transmission infrastructure
- Capacity of transmission infrastructure
- Ownership and maintenance (the role of local government?)

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